

Exciter

Raleigh Amateur Radio Society



Special Issue
Field Day and RARS Repeaters

Worldwide Friendship

July/August 1999 Number 348

RARS Nets Return to the Air—NCOs Needed

Cliff KF4RDP

"Calling the Raleigh Amateur Radio Society two-meter net, calling the RARS two-meter net!" For the first time in almost thirteen months, on Saturday evening, May 8th, those familiar words were once again heard on 146.64 MHz. Clear and wide-ranging, the repeater transmitted the words of RARS Net Manager Cliff Broughton KF4RDP to kick-off the inaugural edition of the RARS 2-meter net on the new flagship repeater. During the next 47 minutes, 25 hams checked in to the net, passed on several announcements and regaled those listening with reports on the outstanding performance of the repeater, sharing in ragchews about their days.

Since the .64 repeater has returned to the air, almost all of the regularly scheduled nets have returned to schedule in their old time-slots. The 8:00 evening net had check-in totals in the high teens to low twenties every night during its first week—an improvement over the last days before the repeater went off-line a year ago!

The return of the repeater meant that the 8:00 evening net was hopping. High turnout initially stumped the Net Manager, especially since only a few net control operators (NCOs) were trained and in place.

At press-time, we only need NCOs for the Tuesday and Friday evening nets. However, in order to assure all club nets run on schedule, we need a primary *and* an alternate NCO for each evening. In addition, we need to establish a pool of trained NCOs who can fill-in in a pinch or relieve a wary NCO on occasion. If you're interested in becoming an NCO, refer to the RARS Web site at <http://www.rars.org/netsked.htm>.

Many thanks for those of you who temporarily filled in during the first weeks of the repeater return, and to those of you who now regularly run one of the many 8:00 nets.

Fielding Communications

Tank KT40C, Jim N4CAE, Charlie W4VFJ, Jeff AC4ZO, Bill NOWP (Field Day Chairman), and Cliff KF4RDP erected the beam for the 20-meter SSB station. The station made 469 contacts during Field Day 1999.

RARS operated two separate Field Day operations this year—a 5A station using the W4DW call sign and a single, all-CW station operating 1A using W4D.

Point totals: W4D—4,292 points; W4DW—5,092 points.

Special thanks to all operators who assisted with erecting and tearing down antennas and ham stations. Once again, volunteer efforts kept things running smooth and fun for all.



Exciter Publishing Information

Dolly Sickles, Interim Editor

Exciter is published monthly by the Raleigh Amateur Radio Society and is available to its members at no cost. Letters to the Editor, technical articles, amateur radio community items of interest, and guest editorials are always welcome.

Articles published in *Exciter* do not officially represent the views of endorsement by the society. Articles are printed at the discretion of the Editor; no article will be published unless it is accompanied by the article submitter.

All *Exciter* submissions must be received by the editor by the third Tuesday of each month. Articles can be hand-written, typed, or submitted electronically as rich text, and may be sent directly to the Editor or submitted via any society officer.

Amateur radio-related items for sale by members of the society may be advertised without charge for one issue, but may be re-submitted as often as desired. Only non-commercial classified advertising will be printed with no charge.

Commercial advertisers may contact the *Exciter* Editor for advertising rates and sizes. All proceeds from commercial advertising are donations to the society. Please do not use amateur radio as a means of transmitting commercial advertising information or material.

Contributions, inquiries and comments concerning *Exciter* content, advertising, distribution, and policies should be directed to the *Exciter* Editor.

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President's Corner

Gary KN4AQ

Field Day falls at an awkward time for the *Exciter*. The July issue is at the printer while we're out of having a good time. At least, I hope we had a good time.

At the June meeting, it looked tense for a minute. After winning our category two years in a row, and making the top 10 last year, it didn't look like we would have as competitive an effort this year. Last year's 20- and 80-meter CW band captains decided to sit this year out, operating at other stations instead. No one stepped into fill the gap. Without those stations, there's little chance of winning a category. The rules are tilted in favor of good CW operators.

This left some of the operators at the 40-meter CW station feeling frustrated. They appreciate RARS' commitment to an open field day, but they don't feel challenged unless there's a chance to win.

Fortunately, the solution was simple. *(continued on page 4)*

Letters to the Editor

I just wanted you to know how much I liked your "ADSL Adventure," both in the *Exciter* and on the clubs Web site. What I thought you might also like to know is there is a RARS and a HAM connection to ADSL technology. First of all, perhaps you did not know that much of the equipment used to deliver ADSL service to your home is manufactured in Raleigh by Alcatel USA. Alcatel, among other things, supplies over 50% of the ADSL equipment used worldwide. There are several hams here at Alcatel—the most famous being Vince AA4MY.

Just a quick note about your ADSL modem—it achieves bandwidths of greater than 8 MHz by using 256 tones, each spaced 4.3 kHz apart. Each tone is then quadrature amplitude modulated, and this allows such a remarkable bandwidth. The system is adaptive, so if there is noise on the line, some of the tones may not be used. Also if your system provider desires, one modem can be used via the Ethernet (T-base 10) to address more than one PC. The telco. providers will probably offer even faster speeds and additional services as needs and customers so wish. Thanks again for a well-written article.

Larry Young K4LXV, Alcatel PE ADSL group

HAM Facts

Bernard KC4UPX

There's been some confusion about sub-audible tone on the new 146.64 machine. Here's the straight story.

Will .64 go PL? No, unless unforeseen conditions make that necessary.

When the final machine is in place, we will have the ability to switch the repeater into full PL mode (requiring users to send sub-audible tone) if necessary. We'll use the familiar 88.5 tone in that case.

We will always send 88.5 Hz tone in that same way we used to during mobile transmissions and phone patches, but not during the hang-time or ID's.

What unforeseen conditions might cause us to require users to send PL? The kind of thing we're thinking of is an intractable intermod or noise problem at the repeater site that causes the repeater to stay on the air, repeating noise and junk. We have invested in an expensive front-end filter to help avoid that problem.

We do not plan on "going PL" to respond to signals from Winston-Salem users signals that appear at our input during band openings.

Missing your favorite author? The RARS Web site maintains a supplementary article bank of overflow *Exciter* articles. Check it out today!

RARS Web Site Gets Much-Anticipated Facelift

Cliff KF4RDP

Changes to the RARS Web site began in earnest on May 10 with a homepage facelift. As we discussed in the May 1999 *Exciter* issue, the site has a new URL and can be found at <http://www.rars.org>.

Users can still enjoy an all-inclusive Web site, full of club and repeater information, a calendar of events, public service information, RARS club information, and links to other amateur radio spots of interest. The new layout is cleaner and better organized, and better optimizes the real estate of your computer monitor (that means less scrolling and hunting for content and link descriptions).

Cliff KF4RDP, the new RARS Webmaster, has worked at updating the site. Said Cliff KF4RDP, "The material stored on the Web site is great. It just needs some serious reorganization. The people that have contributed to it deserve credit for what they've done—so far it's making my job that much easier."

The Web site update focuses on organization, individual page content, new features, more timely updates, and ease of use. Club member and user feedback has been put to the task and is the major driving force for the guidelines used to review and update of the existing material.

Three new features have been added to enhance the sleek new look and feel of the RARS site—*What's New*, a *Solar Activity Indicator*, and the *RARS Net Schedule*.

Look to the *What's New* page for news stories submitted by RARS members. Such stories will be late breaking information that relates to RARS and to the local ham community. The *What's New* page will also house the new *Exciter* supplement.

A *Solar X-ray Activity Indicator* has been added to the main page, as well. This indicator should be of special interest to the HF crowd since it provides a 24-hour solar activity history. Interested operators should check out the link for more detailed data—and watch out for the next Mega-Flare!

RARS Net Schedules are now posted on the site with descriptions and a concise schedule of the various directed nets, complete with Net Control Operators listed. This link also lists any openings that may exist in the schedule.

Other points of interest include a *RARS Members Only* section and PDF versions of *Exciter*. "It's much more inviting and gets to the point," notes Tim KF4RTX, RARS Vice President. Keep in mind that any Web site constantly evolves; members are invited to forward any ideas, comments, suggestions, or additions to the webmaster at webmaster@rars.org, or check the Web site for contact information.

The regular meeting of the Raleigh Amateur Radio Society was held on June 1, 1999 at the Forest Hills Baptist Church on Clark Avenue. The meeting was called to order at 7:32 PM by President Gary Pearce KN4AQ, who welcomed 64 members and 3 guests.

David N4YTO gave the treasurers report. He said that RARS membership is 263. He then presented the line item budget for the 1999-2000 year. With no discussion, a motion was made by KF4RDP and seconded by KD4SLD that we approve the budget as presented. The motion passed. The issue of the repeater relocation project was then brought up. A financial proposal was made, and a short discussion ensued. Finally, a motion was made by AC4ZO, seconded by

KD4SLD that we approve the funding for the project. The motion passed. David then said that a renewal form will be included in the June *Exciter* in order to streamline the renewal process this year.

Gary KN4AQ said a few words about *Exciter*, and described how to find an on-line version that can be printed on a home PC. Bernard KC4UPX gave the FM committee report. He reported on the .64 machine's coverage, and commented on some of the activity that has been on the repeater. He also reported that all paperwork has been submitted for the Bayleaf site and the building is almost ready. The antenna work is expected to be underway in a few weeks.

Gary KN4AQ introduced Reed

Whitten AB4W, our Section Manager. Reed met with the organizers of the Special Olympic World Games and said a few words about their meeting. Then, he introduced Matt Sickles W2BYV, the new Wake County EC. Matt said a few words about the recent public service work that the club has been involved in, and thanked the operators. Matt also had signup sheets for ARES available.

At 8:36 PM Gary KN4AQ introduced the program for the evening: Field Day. The speaker was Bill Pond N0WP. At the end of the presentation, a Band Captain meeting was arranged for after the adjournment of the general meeting. Door prizes went to W9VAK and KO4QH. The meeting adjourned at 8:49 PM.

President's Corner (continued from page 2)

Gary KN4AQ

We decided to operate two separate Field Day stations; a 1A station competing by itself, and then all the rest of the stations as a separate group. We've done that several times over the past years with great success.

The important point here is that club members decided to keep working together and compromise. In other clubs around North Carolina, the dedicated core of HF and contest operators decided to pull out and form their own organization. That left the original club without the guidance of these experienced hams. Regardless of how we fared on the bands, RARS came out of this Field Day a winner.

Break a leg. I don't remember covering anything like this in the Safety Class. I wasn't hit by lightning, I didn't fall off the top of the tower, and in fact I became fully grounded. I guess I must have missed something in class.

Yes it's true, I broke my arm falling off my bicycle while trying to keep my handy-talky from smashing to bits. It's a long story, and I won't relate it all here. It's not as if I made a conscious choice, but if I had the choice to make I'd probably break the arm again to save the radio.

The monthly board meeting of the Raleigh Amateur Radio Society was held at the Forest Hills Baptist Church on May 18. The meeting was called to order by KN4AQ at 7:41 PM. Members present at that time were KN4AQ, KF4RDP, WD4RDT, KF4RTX, KC4UPX, N0WP, N4YTO, and AC4ZO. The total attendance was 10.

The minutes of the April meeting were reviewed. On motion by KC4UPX, seconded by KF4RTX, the minutes were approved.

N4YTO gave the Treasurer's report and said that the membership is currently 258.

Committee Reports:

KC4UPX gave the FM Committee report. The 146.64 repeater is back on the air at its permanent location but with temporary radio equipment. Paperwork is still being finalized for the Bayleaf site, but is expected to be complete very soon.

Cliff KF4RDP gave the Net Manager report. He said that all the two meter nets have moved back to the 146.64 repeater now. Also, the 10-meter net

that has been meeting Wednesday nights on 28.420 MHz will soon move to the old RARS ten meter net frequency of 28.364 MHz.

Now wearing the hat of the webmaster, Cliff KF4RDP said that the RARS Web site received a facelift on May 10 and feedback has been favorable. Cliff KF4RDP is adding new features to the page and improving overall organization.

N0WP reported on the upcoming Field Day event. There are several band captain positions left to fill, and he expects the generator situation to become a problem.

Unfinished Business:

The Financial Review Committee presented their report from the May audit. After a small amount of discussion, a motion was made by AC4ZO, seconded by N0WP, that the board authorizes the treasurer to purchase the computer software "Quickbooks" from Intuit software for use by the club. The expenditure is to be made from the administration line item. The motion passed.

N4YTO presented a worksheet for the 1999-2000 budget. There was lots of discussion and many ideas were heard. Line items were changed and changed again. Finally, a suitable budget was developed and a motion was made by KC4UPX, seconded by KF4RTX, that this budget be presented to the membership. The motion was carried.

Announcements and Comments:

AC4ZO announced that he has been invited to speak at the Baltimore Amateur Radio Club meeting in September. The topic will be "The Invention of the Telegraph."

KF4RTX is in the process of moving and hopes to be in his new house before the June board meeting.

N0WP brings the news that a former Mecklinburg County amateur radio club president will soon be moving to Raleigh.

On motion by AC4ZO, seconded by KF4RTX, the meeting adjourned at 10:10 PM.

ARRL bulletin 41, June 22, 1999

Submitted by Gary KN4AQ

To all radio amateurs, SBQST ARL ARLB041 ARLB041 FCC sets new vanity fee. The fee to apply for an Amateur Radio vanity call sign will increase from \$13 to \$14 starting September 10, 1999. The FCC has released its FY 1999 fee schedule which rounded down the proposed \$1.42 per year fee. The FCC continues to receive in excess of 1000 vanity applications per month.

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Sunrayce 1999

Gary KN4AQ

Ham radio played a big part in Sunrayce 99. Our hobby's role went well beyond the position reporting that we did as 29 solar-powered cars worked their way from Washington, D.C. to Orlando, Florida during their ten day competition in June. We found that many members of the college-sponsored solar teams have ham licenses—some of the teams require a ham license for team membership. And they use ham radio to communicate between the solar cars and the support vehicles.

Hams in North Carolina and the southeast helped out by relaying car numbers and times from each day's starting line and checkpoints to that day's finish line. On Monday, June 21, the cars were running from Charlottesville, Virginia to an overnight stop in Raleigh. We used 75 meters to talk to Hein N4FWA, who relayed the list of cars and their starting times.

Al KE4IHX manned the three-quarter checkpoint in Roxboro. Many of the cars never made it that far. We experimented with several repeaters to reach Al KE4IHX, and ended up again on the South Boston machine. Many more hams passed along unofficial information as the cars traveled through Durham and Raleigh.

All the information was collected by Max KO4TV and Byron K4NGJ at the finish line and passed on to Sunrayce officials. Bill KM4UO assisted relaying information on 75 meters, but Max's monster screwdriver antenna allowed him to hear the Charlottesville signal directly.

On Tuesday morning, the cars left Raleigh headed for Concord, with a pit stop in Rockingham. Max KO4TV and Fred KE4IHX collected the day's start information and passed it on to the next ham group in the chain from Cabarrus County. We used both 75 meters and PCRN's Broadway repeater on 147.105.

The days were cloudy and cool. One of the most frequent questions we heard was "can the cars run on cloudy, rainy days?" The answer turned out to be—it depends. Only two cars, which look more like small flying saucers on wheels than cars, reached the finish line on Monday. Most of the rest stopped somewhere along the course, and finished the day's run on trailers. A few cars never even left the starting line under their own power. The cars that did run had average speeds of less than 30 mph.

The Kansas team, one of the all-ham teams, chose to trailer their car from the start to the finish line. One of the team members explained the strategy. He said that the car finishing the race on a day like this probably depleted its batteries to a dangerous level since there wasn't enough sun energy to power that car. The Kansas team took a penalty for the miles traveled on the trailer.

The Sunrayce officials expressed their appreciation for the excellent communications assistance that they received from the North Carolina hams.

Field Day Attracts Local Media



Extra points accrue for RARS as a photographer from the News & Observer records the 80-meter SSB station during Field Day 1999.

Field Day Equipment Review



The 80-meter SSB station includes an ICOM 756 transceiver, an MFJ power supply and tuner, an Alinco VHF FM rig for local communication, and a fan to help keep the operators cool. The station totaled 248 SSB contacts, added 55 more contacts on RTTY, and made 64 contacts on CW.

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Tarheel Scanner/ SWL SIG Report

Kelly AE4FG

The June meeting of the Scanner/SWL SIG was held on June 21 at the El Rodeo restaurant on Pleasant Valley Road in Raleigh.

David Crawford KF4VXJ started the presentations by demonstrating an AM radio transmitter used in real estate sales.

Kelly Mills AE4FG brought a Zenith Trans-Oceanic Royal 7000 and discussed some of the features and history of the radio. Kelly also gave an overview of the MP3 audio format, and of old-time radio shows that may be downloaded over the Internet.

Seven people attended the meeting, which broke up around 9:45 PM.

The July meeting will be held on July 19 at the Pleasant Valley Road El Rodeo restaurant. We meet for dinner at 6:30 PM and the meetings begin at 7:30 PM. July's meeting will be a show-and-tell meeting, so please bring radios or radio-related topics to discuss.

Everyone is welcome, and you don't need to be an amateur radio operator to attend. For more information, e-mail Bob Zeher (ke4jvy@juno.com) or Kelly Mills (ae4fg@hotmail.com), or call Bob KE4JVY at 919.481.9107.

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All in the Family



40-meter SSB was once again a family affair for the Murphys. Mike WA4BPJ and Joey KE4DRJ are on the air here; Sharon KD4ACK and Katie KE4DRL also logged plenty of operating time. The station totaled 726 contracts.

Membership Renewal

David N4YTO

The Last Exciter? Certainly not! RARS will continue publishing *Exciter*, but if your membership has expired, this could be your last copy.

RARS memberships expire on June 30, so we're sending you one last *Exciter* as a courtesy until you renew your membership. The mailing list will be trimmed down to only *current* members with the September issue—so act now!

If you are not sure of your renewal status, look at your mailing label. If the words "Last Issue" appear on the label, our records indicate that you have not renewed. This date also appears by your record in the membership directory.

To renew, send your membership dues and the renewal notice (included with the June *Exciter*) to the address on the notice. If you do not have a copy of the renewal notice, go to the RARS Web site (<http://www.rars.org>) and download a copy of the membership application. Complete the application and send it with your dues to the address on the form. David Fix N4YTO can also send you a membership application, so call him at 919.890.3200. As always, you can renew your membership at any RARS meeting.

In this issue you will find the latest membership roster; it is listed on pages 7–10.